

Letters to the Editor

Atraumatic Atlantoaxial Subluxation—Grisel Syndrome

by Dr. med. Martin Schwarze, Dr. med. Stefan Hemmer, and Prof. Dr. med. Michael Akbar in issue 45/2020

Early Diagnosis Is Important

We thank the authors for their article focusing on pediatric atraumatic atlantoaxial subluxation (1).

This may occur following local infection or surgical intervention within the craniocervical region (Grisel's syndrome) but also after trauma or without any identifiable cause. Unfortunately the diagnosis is often made late. For the more than 40 subluxations we treated over the past decades the time gap between the occurrence of the subluxation and satisfactory treatment was a mean of 178 days. If the diagnosis is delayed the only remaining therapeutic option is usually surgical revision and fusion of the C1/2 (atlantoaxial) joint, which is of crucial importance for rotation (2).

Recent and still mobile subluxations can be treated by using a direct closed reduction technique: Under short general anesthesia the anterior dislocated lateral mass is palpated transorally at the pharyngeal posterior wall; reduction is performed by slight pressure on the protruded lateral mass assisted by slight derotation and traction at the head.

This approach may spare the children several weeks in halo traction as described in the case example (3).

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In Reply:

We thank Dr. Ruf for his complementary comment on our Clinical Snapshot (1). We agree that substantial delays to the diagnosis and initiation of treatment can cause problems. This also applied to the case we described. About 90 days elapsed between the first symptoms documented in the medical history and the diagnosis. The delayed diagnosis therefore already resulted in atlantoaxial deformity with consecutively fixated rotational subluxation and, on imaging, morphological signs of myelopathy, with the result that no promising conservative treatment option was available. The colleagues rightly point out the published options for mobilizing mobile rotational subluxations, which may potentially spare children long-lasting and stressful halo therapy. We think, however, that it is absolutely essential that such maneuvers (impressively illustrated in [2]) are undertaken by well qualified and experienced personnel under strict adherence to medicolegal framework conditions.

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Conflict of interest statement

The authors of both contributions declare that no conflict of interest exists.